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# ***WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO***

Prepared by  
**U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE**

Collaborating with  
**COLORADO STATE UNIVERSITY EXPERIMENT STATION  
STATE ENGINEER of COLORADO  
and STATE ENGINEER of NEW MEXICO**

Data included in this report were obtained by the agencies named above in cooperation with the Bureau of Reclamation, U.S. Forest Service, National Park Service, Corps of Engineers and other Federal, State and private organizations.

AS OF  
**FEB. 1, 1973**

## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

## PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 511 N. W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 970, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

## PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



# **WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO**

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

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### WATERSHED II - ARKANSAS RIVER WATERSHED

Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Horse-Rush Creek, Central Colorado, Turkey Creek, Pueblo, Bessemer, Olney Boone, Cheyenne, Upper Huerfano, Stonewall, Spanish Peaks, Purgatoire, Branson Trinchero, Western Baca, Southeastern Baca, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, Kiowa County, West Otero, East Otero, and Big Sandy Soil Conservation Districts.

### WATERSHED III - RIO GRANDE WATERSHED (COLORADO)

Describes water supply conditions in Rio Grande, Center, Conejos, Mosca Hooper, Mt. Blanca, Sanchez, and Culebra Soil Conservation Districts.

### WATERSHED IV - RIO GRANDE WATERSHED (NEW MEXICO)

Describes water supply conditions in Upper Chama, East Rio Arriba, Taos, Lindero, Jemez, Santa Fe - Pojoaque, Sandoval, Tijeras, Cuba, and Edgewood Soil Conservation Districts.

### WATERSHED V - DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED

Describes water supply conditions in San Miguel Basin. Dove Creek, Dolores, Montez, LaPlata, Pine River, San Juan, San Miguel Basin, and Glade Park Soil Conservation Districts.

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Describes water supply conditions in Sedgwick, South Platte, Haxton, Peetz, Padroni, Morgan, Rock Creek, and Yuma Soil Conservation Districts.

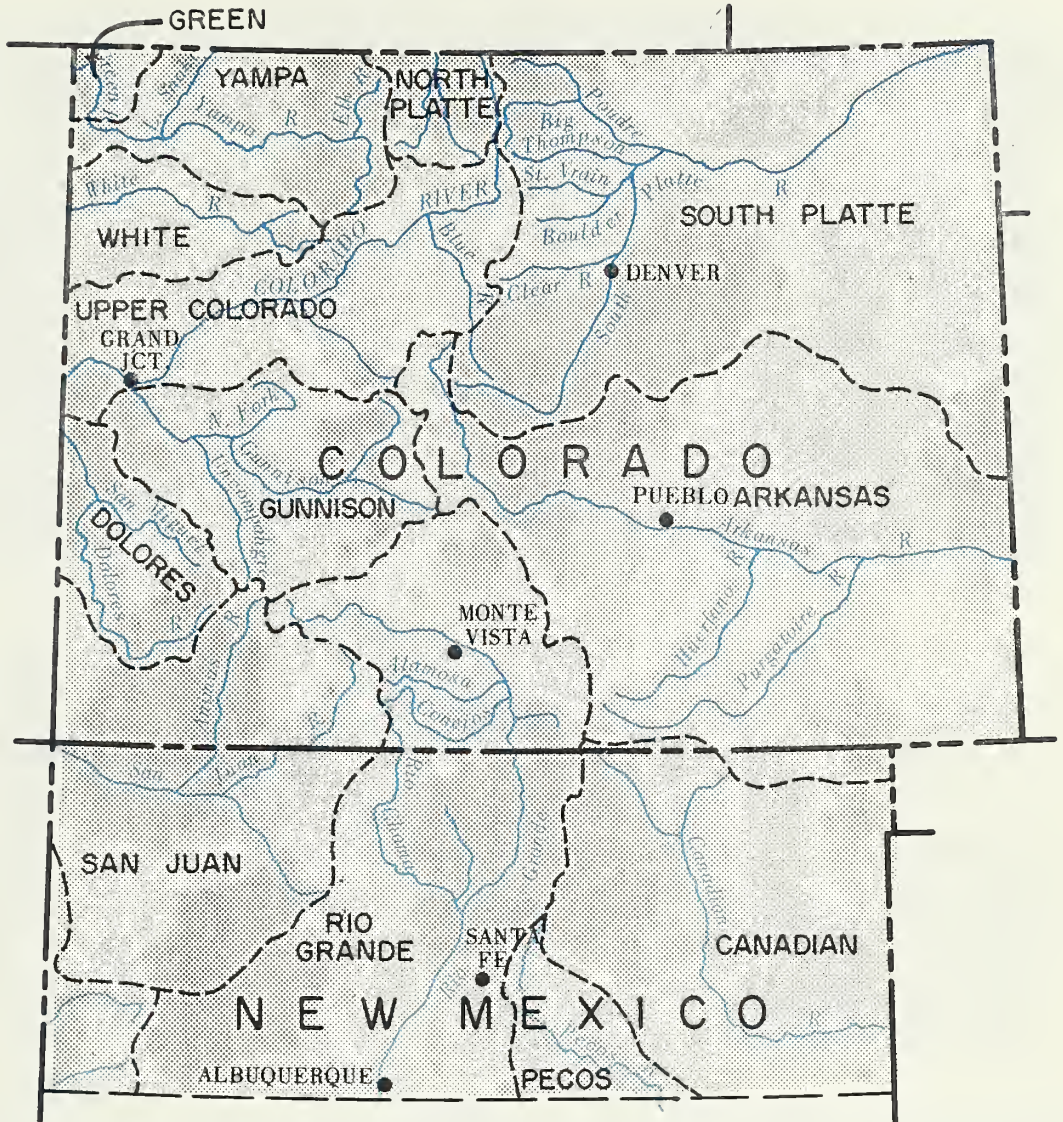
### APPENDIX I - SNOW SURVEY MEASUREMENTS

### APPENDIX II - SOIL MOISTURE MEASUREMENTS

# WATER SUPPLY OUTLOOK

as of

February 1, 1973



GENERALLY ADEQUATE  
100% OR MORE



LIMITED SHORTAGE  
75% - 100%



SEVERE SHORTAGE  
75% OR LESS



The map on this page indicates the most probable water supply as of the date of this report. Estimates assume average conditions of snow fall, precipitation and other factors from this date to the end of the forecast period. As the season progresses accuracy of estimates improve. In addition to expected streamflow, reservoir storage, soil moisture in irrigated areas, and other factors are considered in estimating water supply. Estimates apply to irrigated areas along the main streams and may not indicate conditions on small tributaries.



# WATER SUPPLY CONDITIONS

as of

February 1, 1973

IF SNOW CONTINUES TO FALL OVER COLORADO AND NEW MEXICO AT LEAST AT A NORMAL RATE FOR THE REMAINDER OF THE WINTER, WATER SUPPLIES SHOULD BE ADEQUATE THIS SUMMER.

NORTHERN NEW MEXICO AND SOUTHERN COLORADO, ESPECIALLY THE SOUTHWEST CORNER OF COLORADO HAVE AN EXCELLENT SNOWPACK. THE MIDDLE PORTION OF COLORADO HAS SLIGHTLY BETTER THAN AVERAGE SNOW AND THE NORTHERN PORTION OF COLORADO ONLY ABOUT AVERAGE.

SOILS IN THE IRRIGATED AREAS OF BOTH STATES ARE REPORTED TO BE IN EXCELLENT CONDITION.

CARRY-OVER STORAGE OVER COLORADO DROPPED OFF SLIGHTLY FROM LAST YEAR. NEW MEXICO STORAGE IS SLIGHTLY UP FROM LAST YEAR DUE TO HEAVY FALL PRECIPITATION.



COLORADO

SNOWPACK IN COLORADO RANGES FROM 15 PERCENT OF NORMAL IN THE SOUTHWEST CORNER TO JUST NORMAL ON THE SOUTH PLATTE AND NORTHERN PORTION OF THE STATE. SUMMER

FLows SHOULD BE ADEQUATE IF SNOW KEEPS FALLING AT A NORMAL RATE.

STREAMFLOW FORECASTS IN THE SOUTHERN PORTION OF THE STATE SHOULD BE CONSIDERABLY ABOVE NORMAL. IT IS STILL TOO EARLY TO BE OPTIMISTIC BECAUSE SEVERAL MONTHS OF POSSIBLE SNOWFALL REMAIN. VALLEY SOILS ARE REPORTED TO BE IN GOOD CONDITION ALL OVER THE STATE. SOUTH PLATTE STORAGE IS 120 PERCENT OF NORMAL; ARKANSAS DOWN TO 73 PERCENT; AND THE RIO GRANDE DRAINAGE AT 95 PERCENT.



NEW MEXICO

SNOWFALL HAS BEEN CONSIDERABLY ABOVE NORMAL SO FAR THIS YEAR AND VERY SIMILAR TO LAST YEAR. SOME SNOW COURSES ARE INDICATING 150 PERCENT OF NORMAL AND

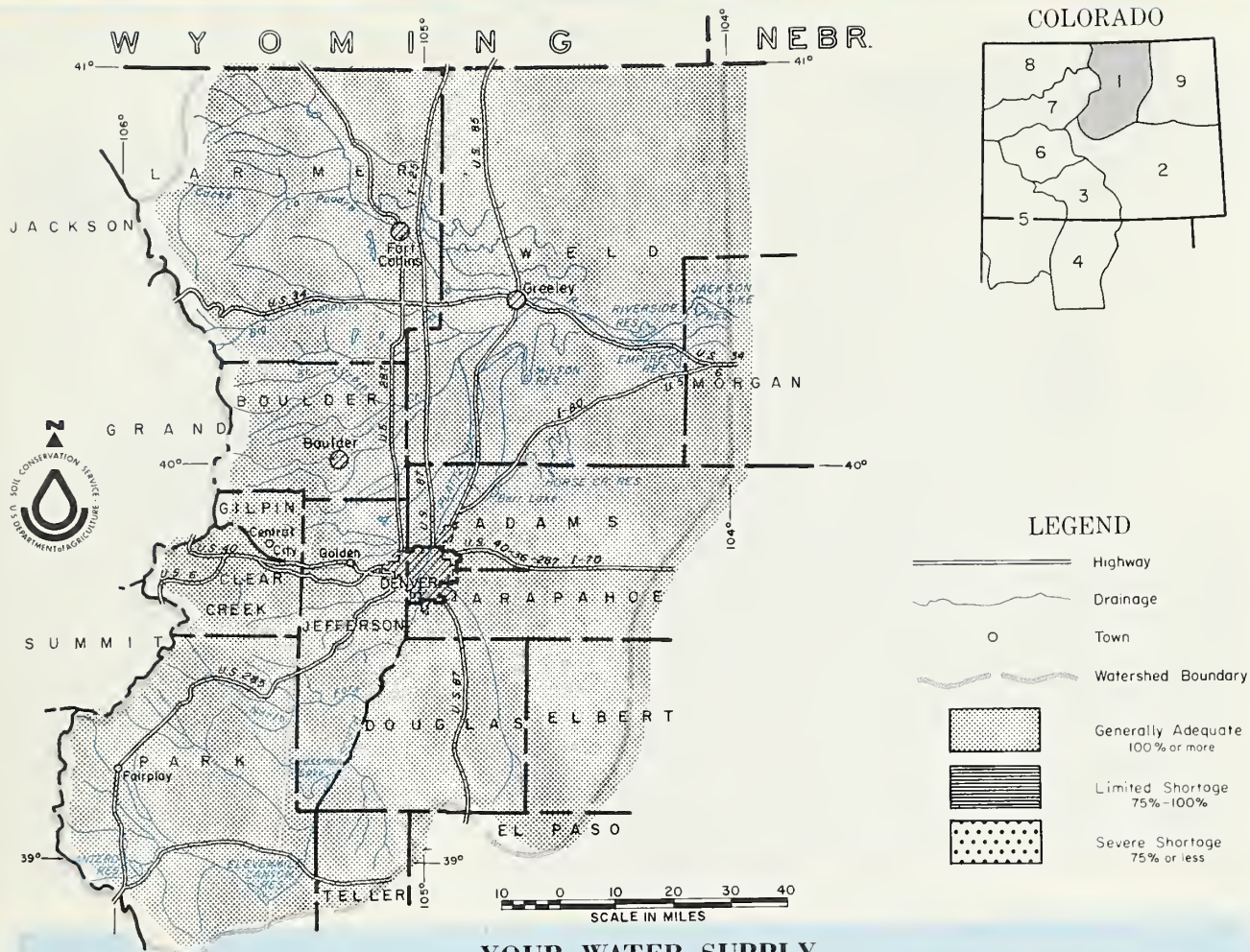
HIGHER. ONLY ABOUT 50 PERCENT OF THE SNOW SEASON HAS PASSED, SO IT IS TOO EARLY TO FORECAST ADEQUATE WATER SUPPLIES. CARRY-OVER STORAGE IN NEW MEXICO RESERVOIRS IS UP FROM LAST YEAR. CURRENT STORAGE IS NEAR NORMAL -- AN 180 PERCENT BETTER THAN LAST YEAR. SOIL IN THE IRRIGATED AREAS OF THE STATE ARE REPORTED TO BE IN EXCELLENT CONDITION.



# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of  
February 1, 1973

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
CSU EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

SNOWPACK CONDITIONS ON THE SOUTH PLATTE TRIBUTARIES RANGE FROM AVERAGE TO ABOVE AVERAGE. THE POUDBRE AND BIG THOMPSON APPEAR TO BE SLIGHTLY HIGHER THAN THE SOUTHERN TRIBUTARIES. SOIL MOISTURE IN THE MOUNTAIN AREAS IS NEAR AVERAGE WHILE THE IRRIGATED AREAS REPORT EXCELLENT CONDITIONS. RESERVOIR STORAGE IS SLIGHTLY BELOW LAST YEAR BUT ABOUT 125 PERCENT OF THE 1953-67 AVERAGE. AVERAGE OR ABOVE AVERAGE SNOWFALL IS NEEDED TO INSURE AVERAGE STREAMFLOW THIS SUMMER.

This report prepared by

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Issued by

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*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.)

FORECAST POINT	FORECAST	% of Average	Average <sup>†</sup>
No numerical forecasts issued until March 1, 1973			

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Bear Creek	Avg	Avg
Coal Creek	Avg	Avg
Deer Creek	Avg	Avg
North Fork of South Platte	Avg	Avg
North Fork of Cache La Poudre	Avg	Avg
Ralston Creek	Avg	Avg
Rock Creek	Avg	Avg

(1) Observed flow plus by-pass to power plants. (2) Observed flow minus trans-basin diversions plus municipal and irrigation diversions. (3) Observed flow minus diversion through August P. Gumlick Tunnel. (4) Observed flow plus change in storage in Price Reservoir.

## SUMMARY OF SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>†</sup>
Big Thompson	5	97	115
Boulder	3	90	96
Cache La Poudre	7	110	136
Clear Creek	6	118	100
Saint Vrain	2	102	152
South Platte	3	100	112

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>†</sup>
Big Thompson	3	93	102
Boulder	1	88	84
Cache La Poudre	2	102	93
Clear Creek	2	125	100
Saint Vrain	2	94	89
South Platte	2	126	117

## RESERVOIR STORAGE (Thousand Ac. Ft.)

END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>
Antero	33.0	15.9	15.9	10.6
Barr Lake	32.2	27.4	21.0	17.6
Black Hollow	8.0	4.3	4.2	3.3
Boyd Lake	44.0	37.5	35.9	27.6
Cache La Poudre	9.5	7.8	7.8	6.6
Carter Lake	108.9	83.7	88.2	61.9
Chambers Lake	8.8	3.8	1.3	2.3
Cheesman	79.0	43.4	79.1	45.6
Cobb Lake	34.3	20.9	20.4	9.9
Eleven Mile	97.8	93.0	76.2	72.0
Fossil Creek	11.6	8.8	8.8	5.4
Gross	43.1	23.6	28.2	24.9

## RESERVOIR STORAGE (Thousand Ac. Ft.)

END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>
Halligan	6.4	4.5	5.0	3.1
Horsetooth	143.5	84.5	90.6	81.2
Lake Loveland	14.3	9.4	11.4	7.9
Lone Tree	9.2	8.2	8.2	6.0
Mariano	5.4	5.2	5.3	3.7
Marshall	10.3	3.0	5.4	2.1
Marston	18.0	14.8	15.6	14.1
Milton	24.4	13.3	16.0	9.0
Standley	18.5	18.1	30.1	7.9
Terry Lake	42.0	5.8	5.7	4.6
Union	12.7	10.8	12.1	7.8
Windsor	18.6	12.0	18.6	7.8

1953-1967 period.

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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE ARKANSAS RIVER WATERSHED IN COLORADO

as of  
February 1, 1973

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
CSU EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



IF SNOW CONTINUES TO FALL AT LEAST NORMAL THE ARKANSAS WATER USERS SHOULD HAVE A GOOD YEAR. THE HEADWATERS SNOWPACK IS 111 PERCENT OF NORMAL AS OF FEBRUARY 1. THE SOUTHERN TRIBUTARIES HAVE EVEN BETTER SNOW AND INDICATE 136 PERCENT OF NORMAL. RESERVOIR CARRY-OVER STORAGE IS BELOW NORMAL AND BELOW LAST YEAR AT THIS TIME. SOILS IN THE IRRIGATED AREAS ARE IN GOOD CONDITION. MOUNTAIN SOILS HAVE NORMAL MOISTURE ON THE SOUTHERN TRIBUTARIES AND CONSIDERABLY BETTER ON THE ARKANSAS HEADWATERS.

This report prepared by  
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# STREAMFLOW FORECASTS (1000 Ac. Ft.)

FORECAST POINT	FORECAST	% of Average	Average <sup>+</sup>
No numerical forecasts issued until March 1, 1973			

(1) Observed flow plus change in Clear Creek, Twin Lakes and Turquoise Reservoirs minus diversions through Bush Ivanhoe, Boustead, Divide, Twin Lakes and Homestake Tunnels and Ewing, Front Pass, Wurtz and Columbine ditches.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>+</sup>
Arkansas	7	111	108
Cucharas and Purgatorie	2	136	88

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Apishapa	Avg	Fair
Fountain Creek	Avg	Fair
Grape Creek	Avg	Fair
Hardscrabble Creek	Avg	Fair
Huerfano	Avg	Fair
Monument Creek	Avg	Fair

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>+</sup>
Arkansas	3	134	110
Cucharas and Purgatorie	1	97	96

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>+</sup>
Adobe Creek	61.6	0.0	14.4	11.5
Clear Creek	11.4	5.2	5.4	6.6
Cucharas	40.0	- -	- -	6.9
Great Plains	150.0	13.5	35.8	26.9
Horse Creek	26.9	0.0	0.0	4.6

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>+</sup>
John Martin	353.9	11.9	18.3	81.5
Meredith	41.9	14.6	3.2	5.7
Model	15.0	--	0.9	2.6
Turquoise	130.0	48.3	58.5	6.9
Twin Lakes	57.9	25.0	30.4	19.7

+ 1953-1967 period.

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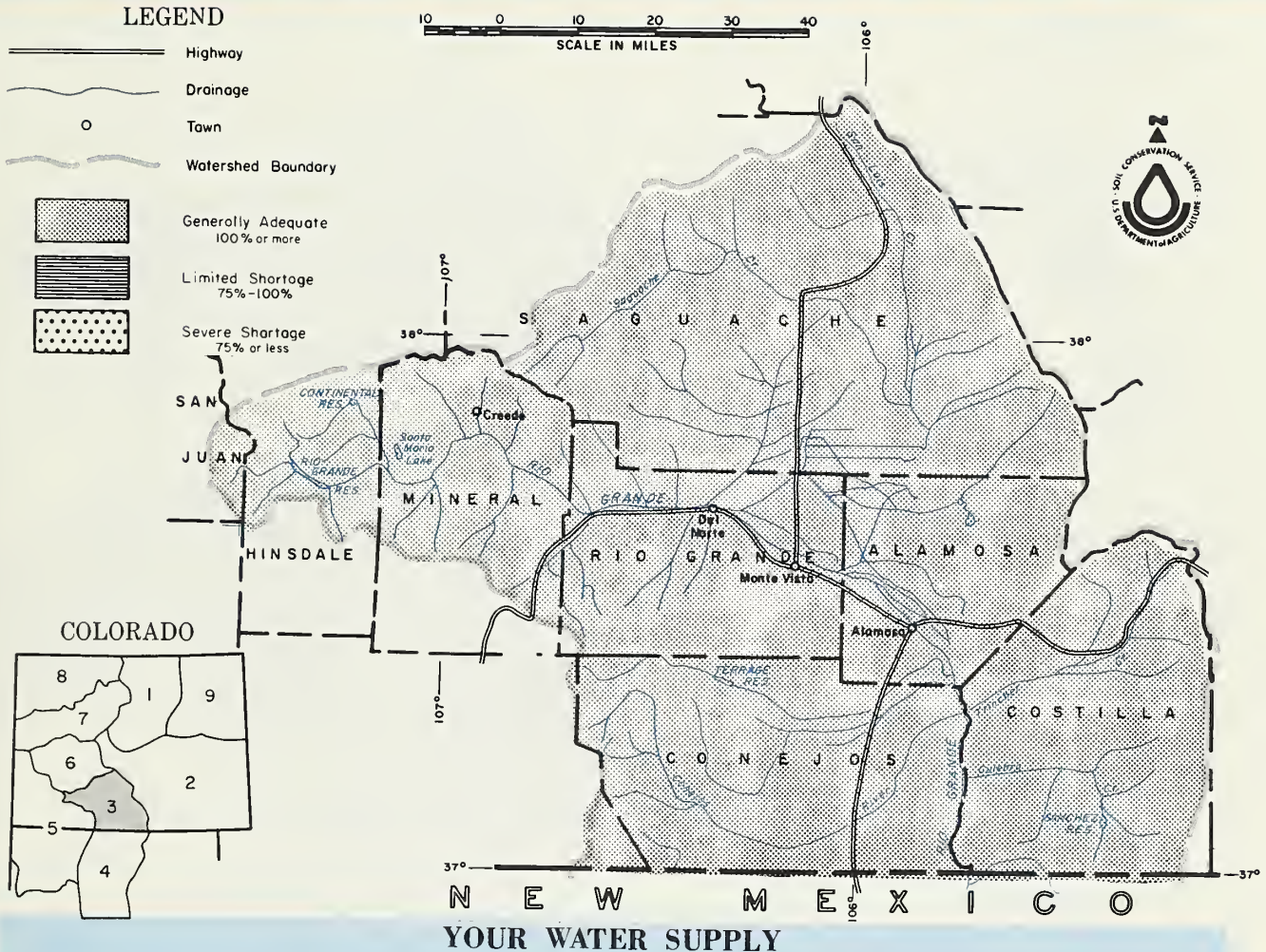
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"The Conservation of Water begins with the Snow Survey"

# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE UPPER RIO GRANDE WATERSHED IN COLORADO

as of  
February 1, 1973

U.S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE  
CSU EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



IF AT LEAST NORMAL AMOUNTS OF SNOW CONTINUE TO FALL FOR THE REMAINDER OF THE WINTER, SPRING STREAMFLOW SHOULD BE EXCELLENT OVER THE ENTIRE RIO GRANDE DRAINAGE. CURRENT SNOWPACK RANGES FROM 120 PERCENT OF NORMAL ON THE CONEJOS TO 175 PERCENT ON THE ALAMOSA. VALLEY SOILS ARE IN GOOD CONDITION FOR THIS TIME OF THE YEAR. MOUNTAIN SOILS CONTAIN ABOUT NORMAL MOISTURE. RESERVOIR STORAGE IS DOWN SLIGHTLY FROM LAST YEAR, BUT STILL NEAR NORMAL.

This report prepared by

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Issued by

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DENVER, COLORADO  
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## STREAMFLOW FORECASTS (1000 Ac. Ft.)

FORECAST POINT	FORECAST	% of Average	Average <sup>†</sup>
No numerical forecasts issued until March 1, 1973			

(1) Observed flow plus change in storage in Platoro Reservoir. (2) Observed flow plus change in storage in Sanchez Reservoir. (3) Observed flow plus change in storage in Santa Maria, Rio Grande and Continental Reservoirs.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>†</sup>
Alamosa	2	137	175
Conejos	4	123	120
Culebra	2	106	141
Rio Grande	10	105	139

## WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Saguache Creek	Exc	Exc
Sangre de Cristo Creek	Exc	Exc
Trinchera Creek	Exc	Exc

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>†</sup>
Alamosa	1	92	84
Conejos	1	92	84
Culebra	2	96	90
Rio Grande	2	108	100

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>
Continental	26.7	4.5	6.1	3.8
Platoro	60.0	2.9	2.9	7.1
Rio Grande	45.8	17.2	14.7	10.9

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>
Sanchez	103.2	5.0	9.5	10.6
Santa Maria	45.0	4.5	6.8	5.3
Terrace	17.7	5.1	5.0	3.5

<sup>†</sup> 1953-1967 period.

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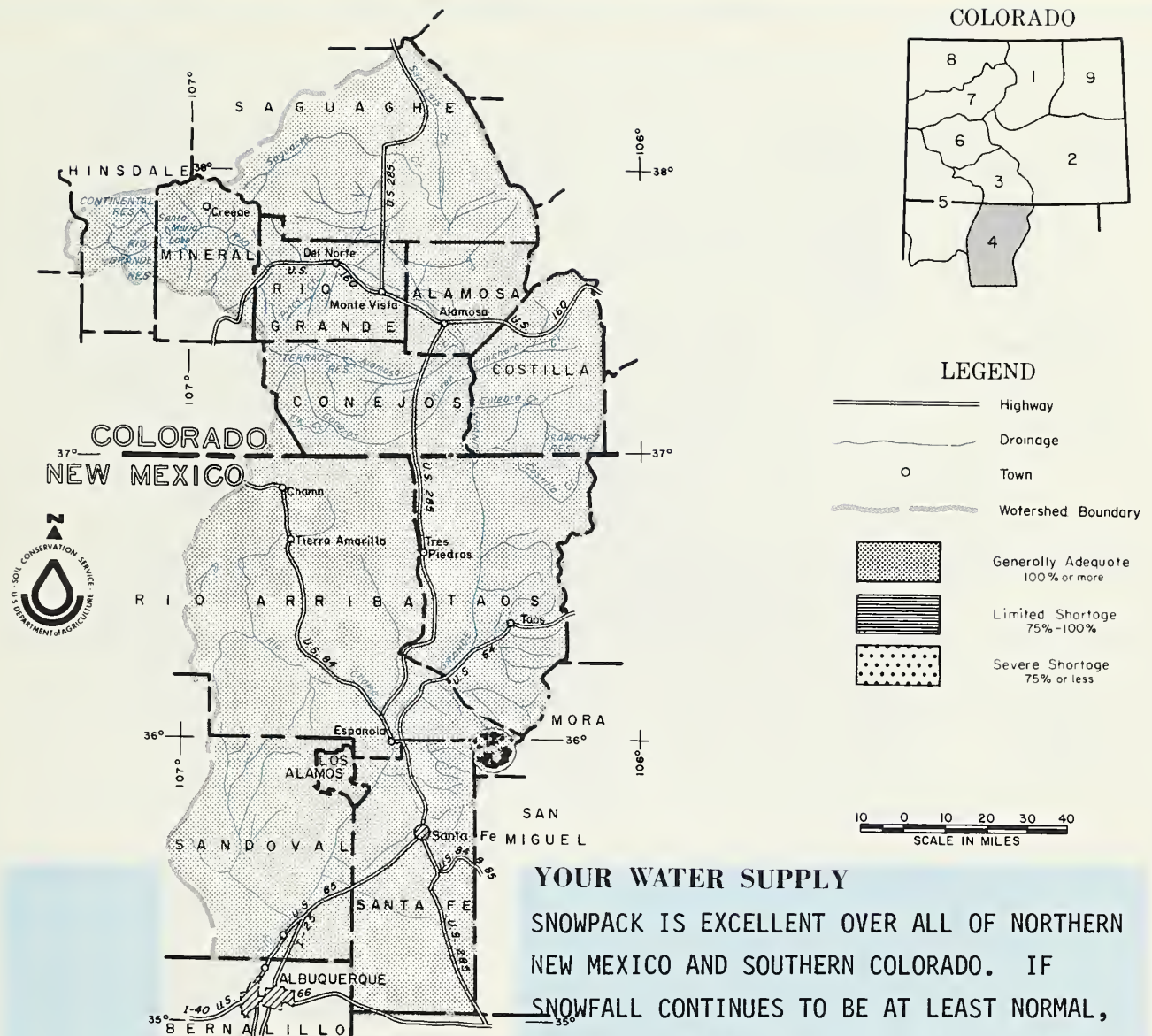
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE RIO GRANDE WATERSHED IN NEW MEXICO

as of  
February 1, 1973

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
CSU EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



IN SEVERAL YEARS. RESERVOIR STORAGE IS BETTER THAN A YEAR AGO DUE TO FALL STORMS. THEY WILL PROVIDE GOOD SUPPLEMENTAL WATER SUPPLIES. SOIL MOISTURE IS REPORTED AS GOOD IN ALL IRRIGATED AREAS.

This report prepared by

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*The Conservation of Water begins with the Snow Survey*

## STREAMFLOW FORECASTS (1000 Ac. Ft.)

FORECAST POINT	FORECAST	% of Average	Average <sup>†</sup>
No numerical forecasts issued until March 1, 1973			

The forecast of the Rio Grande at San Marcial is % of the Average used by the Elephant Butte Irrigation District. (1) Observed flow plus change in Costilla Reservoir. (2) Observed flow plus change in storage in El Vado and Abiquiu Reservoir.

## WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Embudo	Avg.	Fair
Jemez River	Avg.	Fair
Mora River	Avg.	Fair
Nambe Creek	Avg.	Fair
Rio Ojo Caliente	Avg.	Fair
Rio Pueblo de Taos	Avg.	Fair
Santa Fe Creek	Avg.	Fair

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>†</sup>
Pecos	1	163	169
Rio Chama	4	137	140
Rio Grande, N.M.	10	131	140
Rio Hondo	1	131	---
Red River	2	130	137

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>†</sup>
Pecos	2	---	175
Rio Chama	2	48	84
Rio Grande	4	118	141
Red River	1	89	73

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>
Alamogordo	111	85	46	73
Caballo	344	69	17	47
Conchas	273	141	79	163

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>
Elephant Butte	2195	334	225	374
Elvado	195	22	1	4
McMillan-Avalon	38	33	13	19

<sup>†</sup> 1953-1967 period.

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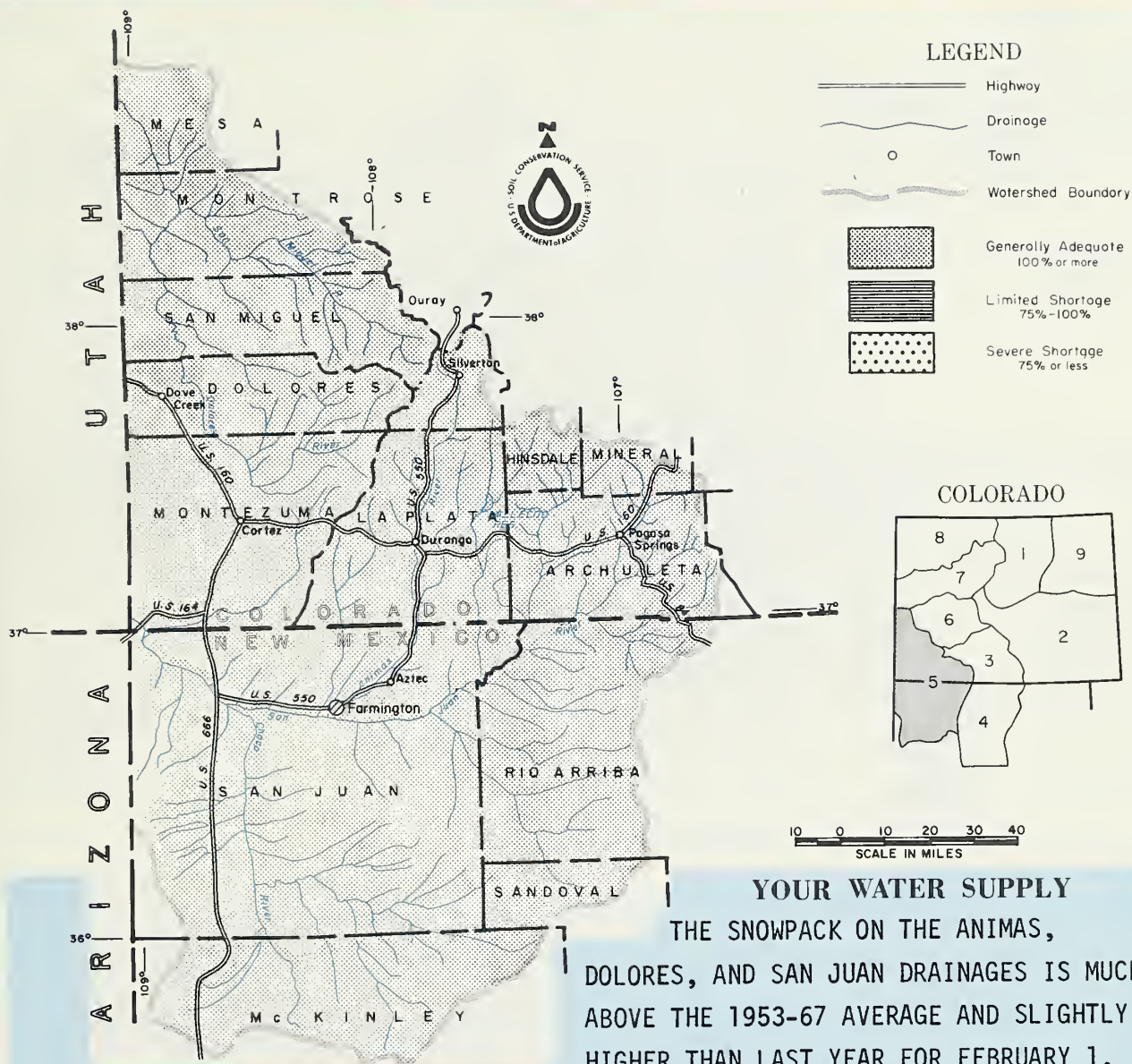
# FIRST CLASS MAIL



# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN WATERSHEDS IN COLORADO AND NEW MEXICO

February 1<sup>st</sup>, 1973

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



RESERVOIR STORAGE IS ABOUT 150 PERCENT OF AVERAGE. SOIL MOISTURE CONDITIONS ARE REPORTED AS EXCELLENT. AVERAGE SNOWFALL THE REMAINDER OF THE SEASON WILL INSURE ABOVE AVERAGE STREAMFLOWS.

This report prepared by

JACK N. WASHICHEK and RONALD E. MORELAND  
SNOW SURVEY UNIT, SOIL CONSERVATION SERVICE  
DENVER, COLORADO

Issued by

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# STREAMFLOW FORECASTS (1000 Ac. Ft.)

FORECAST POINT	FORECAST	% of Average	Average +
No numerical forecasts issued until March 1, 1973			

(1) Observed flow plus change in storage in Vallecito Reservoir.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Animas	6	118	157
Dolores	4	132	165
San Juan	5	114	141

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Florida	Exc	Avg
Mancos	Exc	Avg
San Miguel	Exc	Avg

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Animas	3	115	111
Dolores	3	108	100
San Juan	2	115	111

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Groundhog	22	7	9	7
Lemon	40	21	19	14
Navajo	1696	946	929	542
Vallecito	126	74	50	46
Jackson Gulch	10	10	4	4

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +

+ 1953-1967 period.

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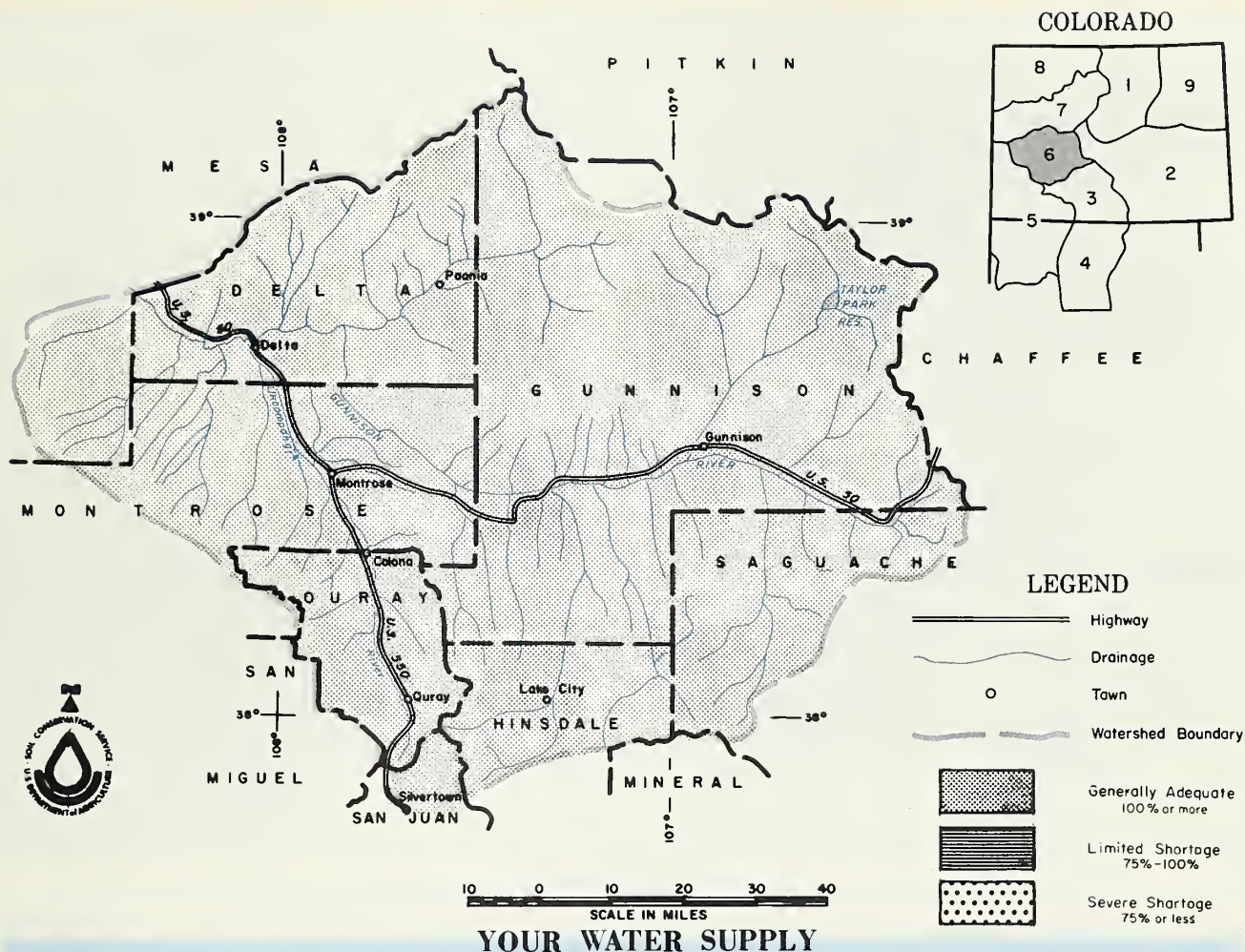


# FIRST CLASS MAIL

# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE GUNNISON RIVER WATERSHED IN COLORADO

as of  
February 1, 1973

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



THE SNOWPACK ON THE GUNNISON DRAINAGE IS 103 PERCENT OF NORMAL AS OF FEBRUARY 1. HIGH ELEVATION SNOW COURSES INDICATE GOOD SNOW. THE GRAND MESA HEADWATERS FOR SURFACE CREEK HAS EXCELLENT SNOW AND SHOULD PROVIDE GOOD WATER SUPPLIES THIS SUMMER. THE SNOWPACK IN THE UNCOMPAHGRE WATERSHED IS ALSO EXCELLENT. HERE THE SNOW IS 160 PERCENT OF NORMAL. RESERVOIR STORAGE IS SLIGHTLY LESS THAN LAST YEAR. SOIL MOISTURE IS GOOD.

*This report prepared by*

JACK N. WASHICHEK and RONALD E. MORELAND  
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DENVER, COLORADO

*Issued by*

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DENVER, COLORADO  
GLENWOOD SPRINGS, COLORADO

*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.)

FORECAST POINT	FORECAST	% of Average	Average +
No numerical forecasts issued until March 1, 1973			

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
North Fork of Gunnison Taylor	Avg	Fair
	Avg	Fair

(1) Observed flow plus change in storage in Taylor Reservoir. (2) Observed flow plus change in storage in Blue Mesa, Morrow Point and Taylor Reservoirs. (3) Observed flow plus change in storage in Paonia Reservoir.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Gunnison	10		
Surface Creek	3		
Uncompahgre	3		

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Gunnison	1	105	116
Surface Creek	1	124	132
Uncompahgre	1	124	132

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Blue Mesa	941	336	370	--
Morrow Point	121	116	116	--

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Silver Jack	14	5	--	--
Taylor	106	39	67	54

+ 1953-1967 period.

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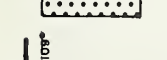
# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE COLORADO RIVER WATERSHED IN COLORADO

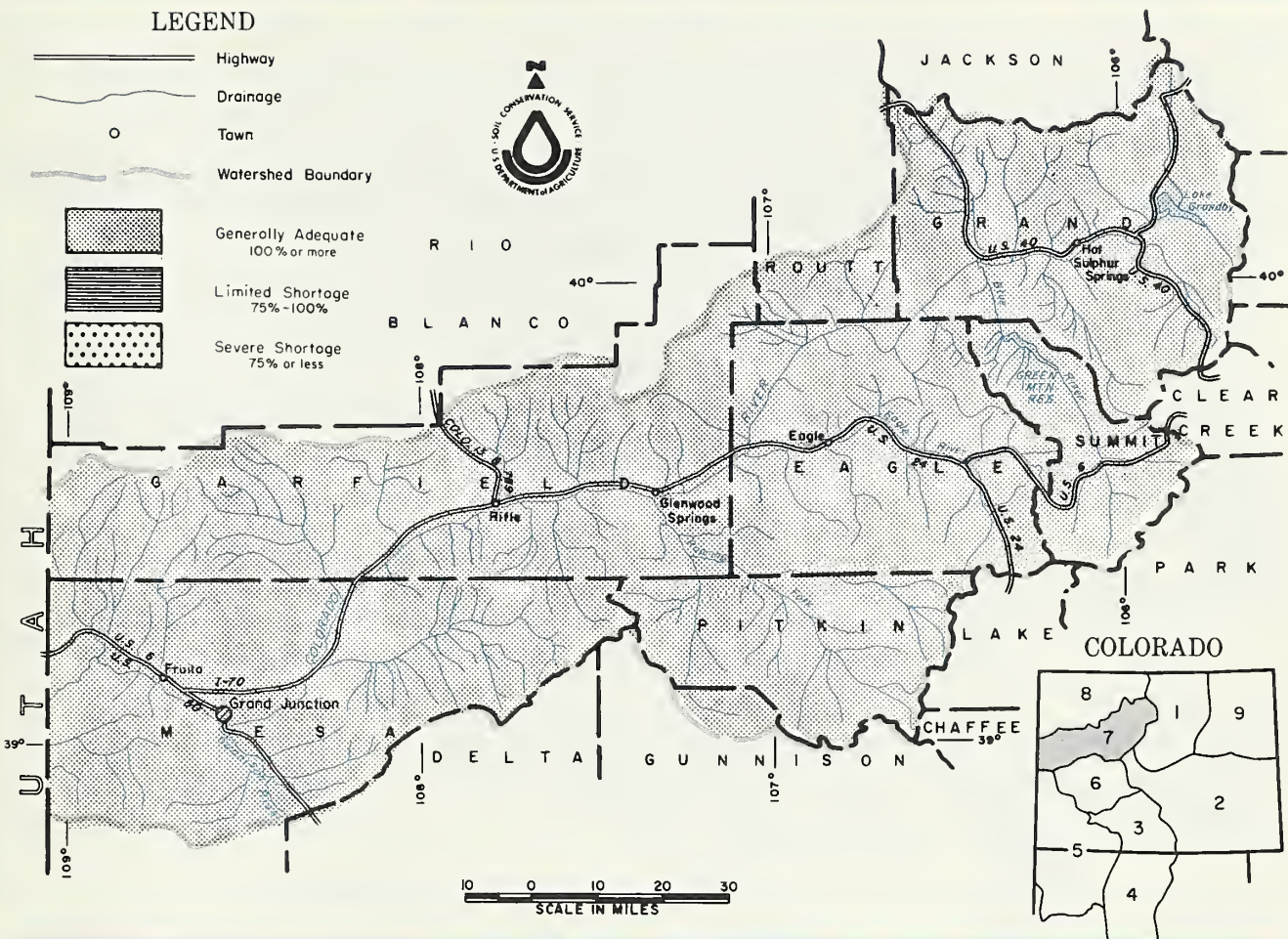
as of

February 1, 1973

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO

## LEGEND

-  Highway
-  Drainage
-  Town
-  Watershed Boundary
-  Generally Adequate  
100% or more
-  Limited Shortage  
75%-100%
-  Severe Shortage  
75% or less



## YOUR WATER SUPPLY

THE COLORADO RIVER SHOULD PROVIDE AT LEAST NORMAL WATER SUPPLIES THIS SUMMER. SNOWPACK VARIES FROM 97 PERCENT OF THE 15 YEAR AVERAGE ON WILLOW CREEK TO 132 PERCENT ON THE WILLIAMS FORK. THE PACK IS JUST LIGHTLY LESS THAN LAST YEAR AT THIS TIME. IRRIGATED AREAS OF THE WESTERN SLOPE ARE REPORTING EXCELLENT SOIL MOISTURE CONDITIONS. MOUNTAIN SOILS ARE REPORTED TO BE IN GOOD CONDITION.

This report prepared by

JACK N. WASHICHEK and RONALD E. MORELAND  
SNOW SURVEY UNIT, SOIL CONSERVATION SERVICE  
DENVER, COLORADO

Issued by

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GLENWOOD SPRINGS, COLORADO

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# STREAMFLOW FORECASTS (1000 Ac. Ft.)

FORECAST POINT	FORE-CAST	% of Average	Average +
No numerical forecasts issued until March 1, 1973			

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Brush Creek	Exc	Avg
Eagle River	Exc	Avg
Gypsum Creek	Exc	Avg

(1) Observed flow plus diversions through Roberts Tunnel and change in storage in Dillon Reservoir. (2) Observed flow corrected for change in storage in Lake Granby as furnished by U.S.B.R. and diversions by Adams Tunnel and Grand River Ditch. (3) Observed flow plus the changes as indicated in (1) (2) and (5) plus Moffat Ditch and change in Homestake, Williams Fork, Green Mt. and Willow Creek Reservoirs. (4) Observed flow plus diversions through Divide and Twin Lakes Tunnels plus change in storage in Ruedi Reservoir. (5) Observed flow plus diversions through August P. Gumlick Tunnel. (6) Observed flow plus the changes as indicated in (3) and (4).

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Blue River	8	94	106
Colorado Plateau	18	99	114
Roaring Fork	3	107	124
Williams Fork	7	89	112
Willow	3	97	132
	2	74	97

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Blue River	1	119	114
Colorado	5	122	112
Roaring Fork	1	134	150
Willow	1	107	103

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Dillon	254	219	236	236
Granby	466	353	365	254
Green Mountain	147	87	89	73
Homestake	43	21	13	--

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Ruedi	101	70	74	--
Williams Fork	97	61	59	33
Willow Creek	9	7	7	--
Vega	32	13	14	11

+ 1953-1967 period.

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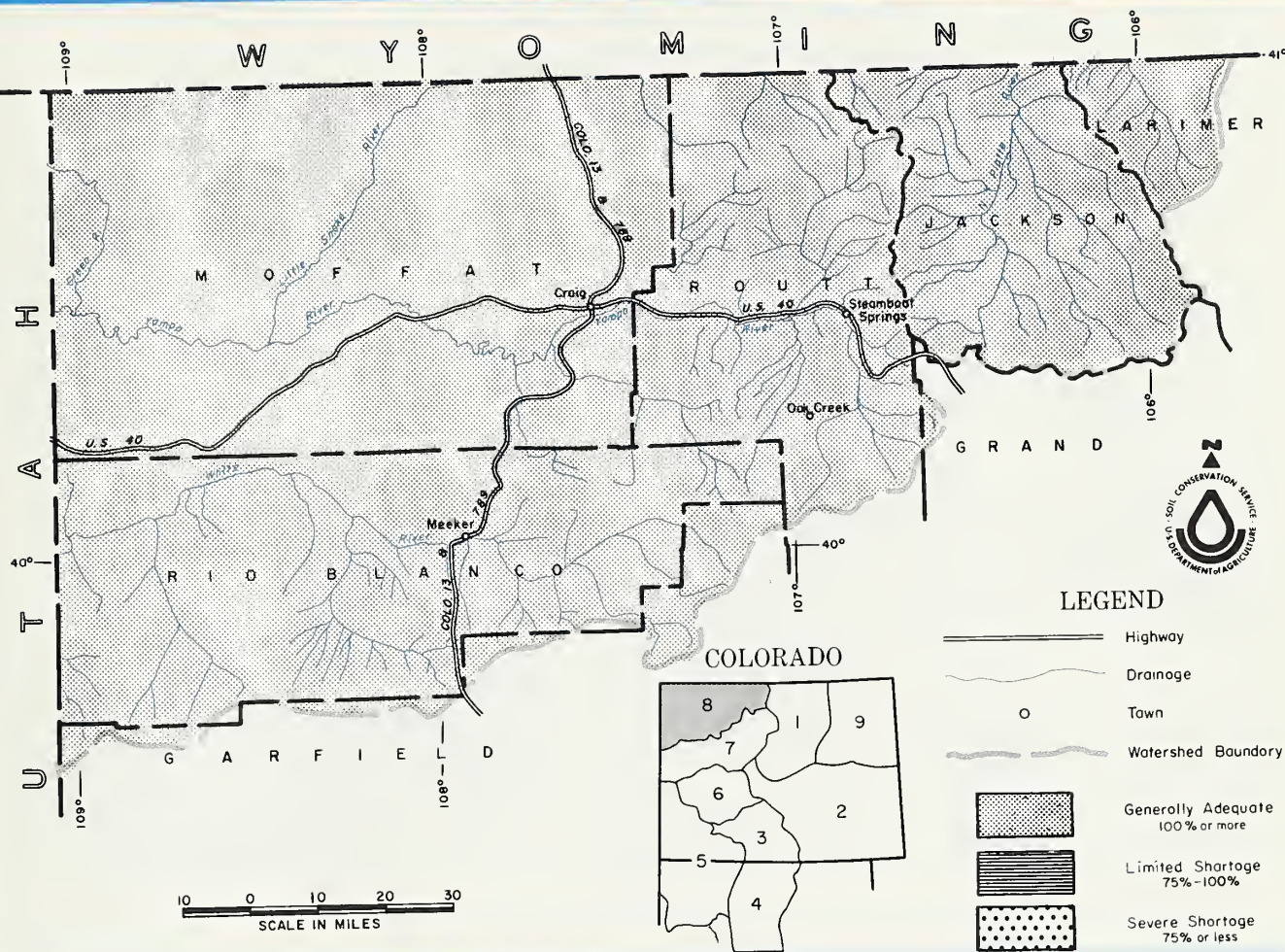
# FIRST CLASS MAIL



# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE YAMPA, WHITE, AND NORTH PLATTE RIVER WATERSHEDS IN COLORADO

February 9<sup>th</sup>, 1973

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

FEBRUARY FIRST MEASUREMENTS NEAR AVERAGE SNOWPACKS ON THE YAMPA, WHITE, AND ELK RIVER DRAINAGES AND ABOVE AVERAGE ON THE LARAMIE AND NORTH PLATTE DRAINAGES. SOIL MOISTURE IN THE MOUNTAIN AREAS IS NEAR AVERAGE. IRRIGATED SOIL MOISTURE CONDITIONS ARE REPORTED AS GOOD TO EXCELLENT. AVERAGE TO ABOVE AVERAGE SNOWFALL IS NEEDED TO PROVIDE ADEQUATE WATER SUPPLIES THIS SUMMER.

This report prepared by

JACK N. WASHICHEK and RONALD E. MORELAND  
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Issued by

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DENVER, COLORADO GLENWOOD SPRINGS, COLORADO

*The Conservation of Water begins with the Snow Survey*

## STREAMFLOW FORECASTS (1000 Ac. Ft.)

FORECAST POINT	FORECAST	% of Average	Average <sup>+</sup>
No numerical forecasts issued until March 1, 1973			

## WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Canadian River	Exc	Avg
Hunt Creek	Avg	Avg
Illinois River	Exc	Avg
Michigan River	Exc	Avg
Oak Creek	Avg	Avg
Trout Creek	Avg	Avg

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>+</sup>
Elk	2	95	97
Laramie	2	125	115
North Platte	5	128	138
White	2	103	115
Yampa	5	94	109

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>+</sup>
Laramie	2	102	93
North Platte	2	100	116
Yampa	1	107	103

+ 1953-1967 period.

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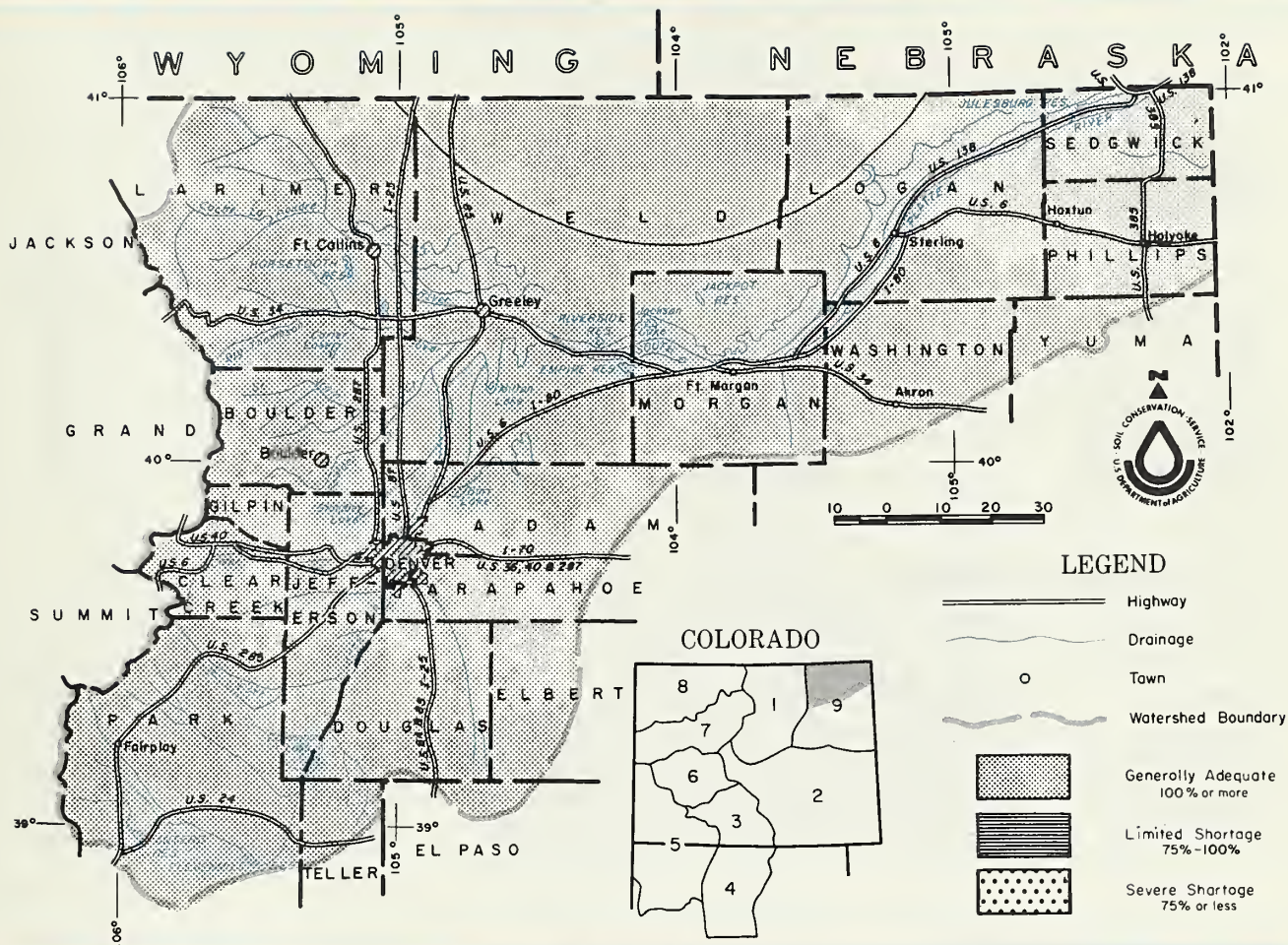
# FIRST CLASS MAIL



# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of  
February 1, 1973

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
CSU EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

FEBRUARY 1 MEASUREMENTS IN THE SOUTH PLATTE BASIN INDICATE NEAR AVERAGE TO ABOVE AVERAGE SNOWPACK CONDITIONS. MOUNTAIN SOIL MOISTURE IS NEAR AVERAGE WHILE IRRIGATED SOIL MOISTURE IS REPORTED AS EXCELLENT. RESERVOIR STORAGE IS SLIGHTLY BELOW LAST YEAR BUT 120 PERCENT OF THE 1953-67 AVERAGE. AVERAGE TO ABOVE AVERAGE SNOWFALL IS NEEDED TO INSURE ADEQUATE STREAMFLOW THIS SUMMER.

This report prepared by

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STERLING, COLORADO

*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.)

FORECAST POINT	FORECAST	% of Average	Average <sup>†</sup>
No numerical forecasts issued until March 1, 1973			

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
South Platte from Greeley to Ft. Morgan	Avg	Avg
South Platte from Ft. Morgan to Sterling	Avg	Avg
South Platte below Sterling	Avg	Avg

(1) Observed flow plus by-pass to power plants. (2) Observed flow minus trans-basin diversions plus municipal and irrigation diversions. (3) Observed flow minus diversion through August P. Gumlick Tunnel. (4) Observed flow plus change in storage in Price Reservoir.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>†</sup>
Big Thompson	5	93	115
Boulder	3	83	90
Cache La Poudre	7	110	136
Clear Creek	6	118	100
Saint Vrain	2	102	152
South Platte	3	100	112

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>†</sup>
Big Thompson	3	93	102
Boulder	1	88	84
Cache La Poudre	2	102	93
Clear Creek	2	125	100
Saint Vrain	2	94	89
South Platte	2	126	117

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>
Carter	108.9	83.7	88.2	61.9
Cheesman	79.0	43.4	79.1	45.6
Eleven Mile	97.8	93.0	76.2	72.0
Empire	37.7	25.1	19.4	22.3
Horsetooth	143.5	84.5	90.6	81.2

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>
Jackson	35.4	29.5	15.5	27.4
Julesburg	28.2	19.8	19.8	20.0
Point of Rocks	70.0	63.4	70.0	43.2
Prewitt	32.8	15.5	22.0	11.4
Riverside	57.5	49.1	40.9	38.7

+ 1953-1967 period.

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# APPENDIX I

SNOW COURSE MEASUREMENTS as of February 1, 1973

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG. '53 '67
NORTH PLATTE BASIN					
Laramie River					
Deadman Hill	1/31	37	9.2	10.2	8.7
McIntyre	NS			-	-
Roach	1/31	53	14.0	11.1	9.8
North Platte River					
Cameron Pass	1/31	58	20.7	21.2	12.9
Columbine Lodge	1/30	43	13.1	18.3	13.6
Northgate	1/31	25	5.8	2.6	3.6
Park View	1/29	38	6.9	6.8	5.2
Willow Cr. Pass (B)	1/29	32	7.7	9.4	7.1
SOUTH PLATTE BASIN					
Boulder Creek					
Baltimore	1/29	26	6.0	3.7	5.2
Boulder Falls	1/29	34	7.1	9.0	6.6
University Camp	1/29	38	8.8	12.1	10.9
Big Thompson River					
Deer Ridge	1/31	16	4.3	2.4	2.6
Hidden Valley	1/31	28	6.9	-	5.9
Lake Irene (B)	1/28	46	13.3	13.5	13.0
Long's Peak	1/26	26	6.4	7.7	5.6
Two Mile	1/28	33	9.4	12.0	7.9
Cache La Poudre					
Bennett Creek	1/27	28	5.7	5.2	-
Big South	1/31	7	1.8	0.3	1.6
Cameron Pass	1/31	58	20.7	21.2	12.9
Chambers Lake	1/31	24	7.6	4.6	5.2
Deadman Hill	1/31	37	9.2	10.2	8.7
Hour Glass Lake	NS			4.3	3.1
Joe Wright	1/31	52	16.6	15.5	-
Lost Lake	1/31	31	8.6	9.1	7.2
Pine Creek	2/1	14	2.8	0.5	1.2
Red Reather	2/1	21	4.6	4.5	3.8
Clear Creek					
Baltimore (B)	1/29	29	6.0	3.6	5.2
Berthoud Falls	1/29	36	9.2	7.8	8.0
Empire	1/29	18	4.0	3.8	4.3
Grizzly Peak (B)	1/30	35	9.1	10.5	9.8
Loveland Lift	1/30	38	10.0	6.1	12.9
Loveland Pass	1/30	36	9.9	8.9	8.5
Saint Vrain River					
Copeland Lake	1/31	15	3.5	4.7	2.6
Ward	1/30	23	5.6	4.2	3.4
Wild Basin	NS			-	6.9
South Platte River					
Como	1/30	23	5.7	5.4	-
Geneva Park	1/30	17	3.5	3.0	2.7
Horseshoe Mt.	1/29	27	6.5	8.9	-
Hoosier Pass	1/30	33	8.1	9.3	7.6
Jefferson Creek	1/30	27	6.3	5.4	5.7
Mosquito	1/30	26	6.3	8.5	-
Trout Creek Pass	1/29	23	5.2	5.0	-
ARKANSAS BASIN					
Arkansas River					
Bigelow Divide	1/30	29	4.7	1.8	-
Cooper Hill (B)	1/30	28	6.4	7.3	-
East Fork	1/30	24	5.7	6.5	5.6
Four Mile Park	1/31	18	3.9	4.2	3.5
Fremont Pass	1/30	36	9.6	10.4	9.5
Garfield	1/29	38	11.0	10.1	8.4
Hermit Lake	1/29	36	9.8	6.4	-
Monarch Pass	1/29	43	11.8	10.9	10.3
Tennessee Pass	1/31	29	6.9	5.7	6.2
Twin Lakes Tunnel	1/19	29	6.1	5.5	6.0
Westcliffe	1/29	32	7.2	5.9	-

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG. '53 '67
<u>Cucharas River</u>					
Blue Lakes	1/29	23	4.1	0.0	2.3
Cucharas Pass	1/29	35	7.3	3.6	-
LaVeta Pass (B)	1/29	35	7.5	7.5	6.2
<u>Purgatorie River</u>					
Bourbon	1/29	30	9.3	5.0	-
<b>RIO GRANDE BASIN-COLO</b>					
<u>Alamosa River</u>					
Silver Lakes	1/26	33	8.6	2.8	3.9
Summitville	1/30	59	18.5	16.9	11.6
<u>Conejos River</u>					
Cumbres	2/1	54	15.1	13.0	13.2
LaManga	2/1	59	16.7	12.3	-
Platoro	1/30	51	16.3	12.5	12.9
River Springs	1/31	33	6.6	2.6	-
<u>Culebra River</u>					
Brown Cabin	1/29	28	6.7	3.7	-
Cottonwood (B)	1/29	27	6.2	-	-
Culebra	1/30	35	9.3	8.3	5.7
LaVeta Pass (B)	1/29	35	7.5	7.5	6.2
Trinchera (B)	1/30	33	8.8	7.6	-
<u>Rio Grande</u>					
Cochetopa Pass	1/29	26	6.0	4.2	3.4
Grayback	1/30	52	16.0	-	-
Hiway	1/30	63	22.4	19.2	15.7
Lake Humphrey	1/31	31	7.3	7.5	5.6
Love Lake	1/29	39	10.0	10.4	-
Pass Creek	1/30	44	13.9	10.5	8.9
Pool Table	1/29	24	4.4	6.2	6.1
Porcupine	1/29	34	8.3	11.6	8.2
Santa Maria	1/28	24	4.7	5.4	3.4
Upper Rio Grande	1/29	35	9.3	10.2	5.4
Wolf Creek Pass	1/30	67	23.8	20.9	17.8
Wolf Cr. Sum. (B)	1/30	77	27.6	25.9	17.7
<b>RIO GRANDE BASIN-N.M.</b>					
<u>Pecos River</u>					
Panchuela	1/29	23	4.4	2.7	2.6
<u>Rio Chama</u>					
Bateman	1/31	36	9.0	6.8	7.0
Capulin Peak	1/29	23	5.7	4.1	3.3
Chama Divide	1/26	19	3.9	2.7	3.3
Chamita	1/26	31	7.5	5.4	5.0
<u>Rio Grande</u>					
Aspen Grove	NS			-	-
Big Tesuque	1/24	28	7.0	5.1	3.7
Blue Bird Mesa	1/30	15	4.2	2.8	3.8
Cordova	NS			-	6.3
Elk Cabin	1/26	18	4.3	3.7	2.9
La Cueva	1/15	27	6.6	5.5	-
Hopewell	1/31	46	11.8	10.3	-
Pajarito Peak	1/29	8	1.8	1.3	1.3
Payrole	1/26	30	7.6	4.8	5.9
Quemazon	1/29	32	7.6	7.0	6.5
Rio En Medio	1/24	38	9.2	7.8	6.1
Sandoval	1/26	20	4.4	5.9	3.7
Taos Canyon	1/30	19	5.2	2.0	3.4
Teakettle	1/30	30	7.9		
Tres Ritos	1/27	31	6.0	3.2	3.5
<u>Rio Hondo</u>					
Twinning	1/30	26	7.1	5.4	-
<u>Red River</u>					
Hematite Park	1/29	21	5.4	2.7	3.4
Red River	1/29	21	5.3	5.5	4.4

NOTE:

NS - No Survey  
(B) - On adjacent drainage



# APPENDIX I

SNOW COURSE MEASUREMENTS as of February 1, 1973

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG 53 67
SAN JUAN-DOLORES BASIN					
Animas River					
Cascade	1/29	40	12.7	9.9	8.0
Lemon	1/30	34	10.2	7.8	-
Mineral Creek	1/29	45	14.1	11.5	8.9
Molas Lake	1/29	35	10.6	10.9	8.4
Purgatory	1/29	64	20.6	18.4	-
Red Mountain Pass	1/29	77	27.8	23.1	17.0
Silverton Sub-Sta.	1/29	33	9.2	6.9	4.8
Spud Mountain	1/29	63	22.8	20.0	15.0
Dolores River					
Lizzard Head	1/29	45	14.3	12.5	9.4
Lone Cone	1/29	44	12.7	12.8	-
Rico	1/29	33	9.9	5.8	5.0
Telluride	1/30	32	7.6	5.4	4.5
Trout Lake	1/30	41	12.0	9.4	7.6
San Juan River					
Chama Divide (B)	1/26	19	3.9	2.7	3.3
Chamita (B)	1/26	31	7.5	5.4	5.0
Upper San Juan	1/30	73	26.5	23.3	19.4
Wolf Cr. Pass (B)	1/30	67	23.8	20.9	17.8
Wolf Cr. Summit	1/30	77	27.6	25.9	17.7
GUNNISON BASIN					
Gunnison River					
Alexander Lake	1/30	52	16.6	18.2	11.5
Blue Mesa	NS				
Butte	1/31	30	7.7	10.4	-
Cochetopa Pass (B)	1/29	26	6.0	4.2	3.4
Crested Butte	1/29	35	8.4	9.1	7.5
Keystone	1/30	48	14.9	14.9	12.6
Lake City	1/26	28	6.3	7.6	-
Mesa Lakes (B)	1/29	46	13.0	11.5	10.3
McClure Pass	1/29	43	13.5	14.3	11.6
Park Cone	1/30	28	5.8	7.0	6.2
Park Reservoir	1/30	57	17.1	16.1	14.1
Porphyry Creek	1/29	49	13.2	10.5	10.1
Tomichi	1/29	39	11.3	10.1	7.5
Surface Creek					
Alexander Lake	1/30	52	16.6	18.2	11.5
Mesa Lakes (B)	1/29	46	13.0	11.5	10.3
Park Reservoir	1/30	57	17.1	16.1	14.1
Uncompahgre River					
Ironton Park	1/29	41	11.6	6.7	7.6
Red Mountain Pass	1/29	77	27.8	23.1	17.0
Telluride (B)	1/30	32	7.6	5.4	4.5
COLORADO BASIN					
Blue River					
Blue River	1/30	27	6.0	5.4	5.1
Fremont Pass	1/30	36	9.6	10.4	9.5
Frisco	1/30	22	4.4	4.8	4.3
Grizzly Peak	1/30	35	9.1	10.5	9.8
Hoosier Pass (B)	1/30	33	8.1	9.3	7.6
Shrine Pass	1/30	41	12.0	11.4	9.6
Snake River	1/30	22	4.5	4.6	4.7
Summit Ranch	1/30	21	4.6	5.6	4.4
Colorado River					
Arrow	1/30	34	8.7	9.0	6.4
Berthoud Pass	1/30	38	10.0	9.7	8.3
Berthoud Summit	1/29	44	11.3	10.0	10.8
Cooper Hill	1/30	28	6.4	7.3	-
Fiddler Gulch	NS				8.7
Glenmar Ranch	1/29	31	6.8	7.0	4.7
Gore Pass	1/30	27	7.4	7.1	5.9
Grand Lake	1/29	26	5.1	5.3	4.8
Lake Irene	1/28	46	13.3	13.5	13.0
Lapland	1/29	26	5.9	7.7	-
Lulu	NS				-
Lynx Pass	1/30	33	8.8	8.0	6.6
McKenzie Gulch	1/29	26	5.1	6.2	3.4
Middle Fork	1/29	31	6.8	6.4	5.4
Milner	1/28	32	7.8	8.4	8.7
North Inlet	1/29	25	5.5	5.5	5.3
Pando	1/30	25	6.3	8.1	5.7
Phantom Valley	1/28	28	6.9	5.6	6.1
Ranch Creek	1/30	30	6.8	6.5	5.1
Tennessee Pass (B)	1/31	29	6.9	5.7	6.2
Vail Pass	1/30	38	10.4	11.9	10.0
Vasquez	1/26	33	7.4	8.7	6.9
Roaring Fork River					
Aspen	1/28	41	11.4	12.3	8.9
Chapman	1/29	36	9.6	11.8	-
Independence Pass	1/19	29	6.1	10.0	9.5
Ivanhoe	1/30	45	12.3	13.0	9.6
Kiln	1/30	33	8.3	9.6	-
Last Chance	1/30	28	7.5	9.0	-
Lift	1/28	38	10.2	11.0	10.3
McClure Pass	1/29	43	13.5	14.3	11.6
Nast	1/30	22	5.4	5.3	3.7
North Lost Trail	1/29	39	11.6	13.6	9.5
Williams Fork River					
Glenmar Ranch	1/29	31	6.8	9.6	4.7
Jones Pass	1/29	39	10.0	8.4	7.8
Middle Fork	1/29	31	6.8	6.4	5.4
Willow Creek					
Granby	1/29	19	3.7	6.1	4.6
Willow Creek Pass	1/29	32	7.7	9.4	7.1
Plateau Creek					
Mesa Lakes	1/29	46	13.0	11.5	10.3
Park Reservoir	1/30	57	17.1	16.1	14.1
Trickle Divide	1/30	59	19.3	18.6	15.3
YAMPA BASIN					
Elk River					
Clark	1/26	31	8.2	7.4	8.3
Elk River	1/26	37	10.6	12.4	11.1
Hahn's Peak	1/26	33	9.1	9.3	-
White River					
Burro Mountain	1/30	43	13.5	11.9	10.7
Rio Blanco	1/29	36	9.0	10.0	8.9
Yampa River					
Bear River	NS				
Buffalo Pass	1/29	72	25.2		
Columbine Lodge (B)	1/30	43	13.1	18.3	13.6
Dry Lake	1/29	42	12.4	13.1	12.2
Lynx Pass (B)	1/30	33	8.8	8.0	6.6
Rabbit Ears	1/26	56	17.1	17.4	15.9
Yampa View	1/26	39	10.9	9.8	8.8

NOTE:

NS - No Survey

(B) - On Adjacent Drainage

# APPENDIX II

## SOIL MOISTURE MEASUREMENTS as of February 1, 1973

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVG. ALL DATA
NORTH PLATTE BASIN					
<u>North Platte River</u>					
Muddy Pass	11/8/72	11.1	7.7	6.8	6.4
Willow Pass	10/25/72	9.5	7.5	8.3	6.7
SOUTH PLATTE BASIN					
<u>Boulder Creek</u>					
Alpine Camp	10/1/72	6.9	3.1	3.5	3.7
<u>Big Thompson River</u>					
Beaver Dam	10/1/72	7.1	4.5	5.3	3.8
Guard Station	10/1/72	6.9	3.2	3.2	3.4
Two Mile	10/1/72	9.1	5.3	5.5	5.5
<u>Clear Creek</u>					
Clear Creek	12/28/72	9.5	7.1	5.3	7.1
Hoop Creek	10/25/72	4.9	2.8	2.6	2.9
<u>Cache La Poudre River</u>					
Feather	10/1/72	10.1	4.5	4.7	4.5
Laramie Road	10/1/72	12.4	6.9	6.5	7.8
<u>South Platte River</u>					
Hoosier Pass	10/25/72	7.8	5.5	4.4	4.9
Kenosha Pass	10/25/72	4.4	3.3	2.6	2.6
ARKANSAS BASIN					
<u>Arkansas River</u>					
Garfield	10/18/72	6.7	5.0	4.2	3.9
Leadville	10/16/72	7.8	4.0	3.4	4.2
Twin Lakes Tunnel	10/16/72	4.5	2.4	0.9	2.3
RIO GRANDE BASIN - COLORADO					
<u>Conejos River</u>					
Mogote	11/9/72	10.7	4.6	5.0	5.5
<u>Rio Grande</u>					
Bristol View	11/10/72	6.1	4.1	3.1	3.9
LaVeta	11/9/72	11.9	6.9	7.1	7.2
RIO GRANDE BASIN - NEW MEXICO					
<u>Rio Chama</u>					
Bateman	10/4/72	6.7	2.6	4.5	2.5
Chamita	10/11/72	8.0	1.5	4.1	2.4
<u>Rio Grande</u>					
Aqua Piedra	11/13/72	7.2	4.5	6.0	3.1
Big Tesuque	11/8/72	3.7	3.0	0.8	1.5
Rio En Medio	11/8/72	3.5	2.1	0.8	1.4
Taos Canyon	11/2/72	3.3	2.1	2.3	2.3
<u>Red River</u>					
Red River Summit	11/2/72	4.8	1.6	1.8	2.2

ALL PROFILES 4 FEET DEEP

# APPENDIX II

SOIL MOISTURE MEASUREMENTS as of February 1, 1973

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVG. ALL DATA
ANIMAS - SAN JUAN BASINS					
<u>Animas River</u>					
Cascade	11/8/72	9.1	7.2	5.5	6.3
Mineral Creek	11/8/72	5.7	3.2	3.1	3.7
Molas Lake	11/8/72	9.4	5.8	5.5	4.6
<u>Dolores River</u>					
Dolores	11/1/72	19.6	11.4	10.6	6.7
Lizzard Head	11/1/72	11.8	4.1	3.9	8.3
Rico	11/1/72	13.8	9.3	8.5	9.9
GUNNISON BASIN					
<u>Gunnison River</u>					
King	10/18/72	3.3	2.2	2.1	1.9
COLORADO BASIN (Mainstem)					
<u>Blue River</u>					
Blue River	10/25/72	4.2	3.2	2.7	2.8
<u>Colorado River</u>					
Berthoud Pass	10/25/72	3.9	3.2	2.5	2.8
Gore	10/31/72	4.9	3.1	3.3	2.5
Grand Mesa	11/2/72	12.5	12.3	9.9	9.3
Ranch Creek	10/25/72	8.7	5.4	4.7	6.0
Vail	12/28/72	12.3	6.9	4.9	6.9
<u>Roaring Fork River</u>					
Placita	11/8/72	9.3	7.8	5.8	5.2
YAMPA BASIN					
<u>Yampa River</u>					
Hahn's Peak	11/8/72	19.0	12.1	11.3	11.8

ALL PROFILES 4 FEET DEEP



# LIST of COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

## STATE

Colorado State Engineer  
New Mexico State Engineer  
Nebraska State Engineer  
Colorado State University Experiment Station  
Rocky Mountain Forest and Range Experiment Station

## FEDERAL

Department of Agriculture

Forest Service  
Soil Conservation Service

Department of Interior

Bureau of Reclamation  
Geological Survey  
National Park Service  
Indian Service

Department of Commerce

NOAA, National Weather Service

Defence Department

Army Engineer Corps

Atomic Energy Commission

## INVESTOR OWNED UTILITIES

Colorado Public Service Company  
Public Service Company of New Mexico

## MUNICIPALITIES

City of Denver	City of Greeley
City of Boulder	City of Fort Collins

## WATER USERS ORGANIZATIONS

Arkansas Valley Ditch Association  
Colorado River Water Conservation District

## IRRIGATION PROJECTS

Farmers Reservoir and Irrigation Company  
San Luis Valley Irrigation District  
Santa Maria Reservoir Company  
Costilla Land Company  
Uncompahgre Valley Water Users' Association  
Twin Lakes Reservoir and Canal Company  
Trinchera Irrigation Co.

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